

# VALIDATION AND VERIFICATION REPORT

## *American Carbon Registry*

### Bluesource – East Branch Improved Forest Management Project

**Reporting Period:**

**01 July 2020 to 30 June 2021**

**Prepared for:**

**Bluesource LLC**

**11 April 2022**



AMERICAN CARBON REGISTRY

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## Executive Summary

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This report describes the validation and initial verification services provided for the Bluesource – East Branch Improved Forest Management Project (“the project”), an Improved Forest Management (IFM) project located in Luce County in Michigan’s Upper Peninsula, that was conducted by SCS Global Services. The overall goal of the validation engagement was to review impartially and objectively the GHG project plan against the requirements laid out in the ACR Standard and relevant methodology. The overall goal of the verification engagement was to review impartially objectively the claimed GHG emission reductions/removal enhancements for the reporting period from 01 July 2020 to 30 June 2021 against relevant ACR standards and the approved methodology. The validation and verification engagements were carried out through a combination of document review, interviews with relevant personnel and on-site inspections. As part of the validation and verification engagements, 9 findings were raised: 3 Non-Conformity Reports, 6 New Information Requests and 0 Observations. These findings are described in Appendix A of this report. The project complies with the validation and verification criteria, and SCS holds no restrictions or uncertainties with respect to the compliance of the project with the validation and verification criteria.

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# 1 Introduction

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## 1.1 About SCS Global Services

SCS Global Services (SCS) is a global leader in third-party certification, auditing, testing services, and standards. Established as an independent third-party certification firm in 1984, our goal is to recognize the highest levels of performance in environmental protection and social responsibility in the private and public sectors, and to stimulate continuous improvement in sustainable development. In 2012, Scientific Certification Systems, Inc. began doing business as SCS Global Services, communicating its global position with offices and representatives in over 20 countries.

SCS' Greenhouse Gas (GHG) Verification Program has been verifying carbon offsets since 2008 and to date has verified over 290 million tonnes of CO<sub>2</sub>e, providing GHG verification services to a wide array of industries including manufacturing, transportation, municipalities, and non-profit organizations. The GHG Verification Program draws upon SCS's established expertise to serve the global carbon market.

## 1.2 Objectives

### 1.2.1 Validation Objectives

The overall goal of third-party validation was to review impartially and objectively the GHG project plan against the requirements laid out in the ACR Standard and relevant methodology. SCS independently evaluated the project design and planning information, based on supporting documentation and GHG validation best practices.

The objectives of validation were to evaluate

- Conformance to the ACR Standard.
- GHG emissions reduction project planning information and documentation in accordance with the applicable ACR-approved methodology, including the project description, baseline, eligibility criteria, monitoring and reporting procedures, and quality assurance/quality control (QA/QC) procedures.
- Reported GHG baseline, ex ante estimated project emissions and emission reductions/removal enhancements, leakage assessment, and impermanence risk assessment and mitigation (if applicable).

SCS reviewed any relevant additional documentation provided by the project proponent to confirm the project's eligibility for registration on ACR.

### 1.2.2 Verification Objectives

The overall goal of third-party verification was to review impartially and objectively the claimed GHG emission reductions/removal enhancements against relevant ACR standards and the approved

methodology. SCS independently evaluated the GHG assertion, based on supporting evidence and GHG verification best practice. The objectives of verification were to evaluate

- Reported GHG baseline, project emissions and emission reductions/removal enhancements, leakage assessment, and impermanence risk assessment and mitigation (if applicable).
- Any significant changes to the project procedures or criteria since the last verification.
- Any significant changes in the GHG project's baseline emissions and emission reductions/removal enhancements since the last verification.

SCS reviewed the GHG project plan, GHG assertion, and any additional relevant documentation provided by the client to determine

- That the reported emissions reductions and/or removal enhancements are real.
- Degree of confidence in and completeness of the GHG assertion.
- That project implementation was consistent with the GHG project plan.
- Eligibility for registration on ACR.
- Sources and magnitude of potential errors, omissions, and misrepresentations, including the
  - Inherent risk of material misstatement.
  - Risk that the existing controls of the GHG project would not have prevented or detected a material misstatement.

## 1.3 Scope

### 1.3.1 Scope of Validation

The validation included examination of all the following elements of the GHG project plan:

- Project boundary and procedures for establishing the project boundary
- Physical infrastructure, activities, technologies, and processes of the project
- GHGs, sources, and sinks within the project boundary
- Temporal boundary
- Description of and justification for the baseline scenario
- Methodologies, algorithms, and calculations that will be used to generate estimates of emissions and emission reductions/removal enhancements
- Process information, source identification/counts, and operational details
- Data management systems
- QA/QC procedures
- Processes for uncertainty assessments
- Project-specific conformance to ACR eligibility criteria

### 1.3.2 Scope of Verification

Verification included examination of some or all the following elements of the GHG project plan:

- Physical infrastructure, activities, technologies, and processes of the GHG project
- GHG SSRs within the project boundary
- Temporal boundary
- Baseline scenarios
- Methods and calculations used to generate estimates of emissions and emission reductions/removal enhancements
- Original underlying data and documentation as relevant and required to evaluate the GHG assertion
- Process information, source identification/counts, and operational details
- Data management systems
- Roles and responsibilities of project participants or client staff
- QA/QC procedures and results
- Processes for and results from uncertainty assessments
- Project-specific conformance to ACR eligibility criteria

SCS examined the reported data, quantification methodologies, calculation spreadsheets or databases, source data, project data management systems, data quality controls in place, measurement and monitoring systems, and records pertaining to emissions quantification. Calculation and error checks, site inspections, interviews with project participants, an iterative risk assessment, sampling plan, and audit checklist were performed to the extent necessary for SCS to develop an understanding of how data are collected, handled, and stored for a specific project.

Finally, as a full verification, the verification services included a field visit to the project site and

- Such carbon stock measurements as SCS required to provide a reasonable level of assurance that the GHG assertion is without material discrepancy (per ACR's materiality threshold of  $\pm 5\%$ ).
- Updated assessment of the risk of reversal and an updated buffer contribution.

## 1.4 Validation and Verification Criteria

The validation and verification criteria were comprised of the following:

- ACR Standard, Version 6.0
- Improved Forest Management (IFM) on Non-Federal U.S. Forestlands, Version 1.3 ("the methodology")
- ACR Tool for Risk Analysis and Buffer Determination, Version 1.0
- ACR Validation and Verification Standard, Version 1.1

## 1.5 Level of Assurance

The level of assurance was reasonable.

## 1.6 Treatment of Materiality

For validation purposes, a material misstatement was declared if any of the following circumstances were detected:

- The physical or geographic boundary of the GHG project plan was not reasonably accurate.
- In respect of the project baseline,
  - The procedures for determining baseline emissions were not technically sound.
  - Data representative of the operations and activities had not been used, either from a single year or a multi-year average.
  - The baseline scenario chosen was not one for which verifiable data are available.
- In respect of the quantification methodology,
  - The quantification method for each data type was not clearly defined, and/or the degree of supporting documentation provided was inadequate to support a reasonable level of assurance.
  - Methods were not appropriate for accurately quantifying each data type:
    - Activity data had not been correctly applied from the original documentation.
    - The most accurate activity data readily available had not been used.
    - The quantification methodology did not account for all variations in activity data over the relevant crediting period.
    - Any emission factors used did not meet the requirements of the approved methodology and/or are not appropriate to the activity.
    - Any emission factors used had not been correctly applied from the original documentation to the relevant activity data.
    - The most appropriate factors readily available had not been selected.
    - Where there was a choice among equally defensible emission factors, the principle of conservativeness had not informed the choice of emission factors.
  - Methods were not applied consistently to develop estimates of emission reductions and removal enhancements.
  - The ISO principle of conservativeness was not applied, i.e., the choice of assumptions, calculation methods, parameters, data sources, and emission factors was not more likely to lead to an underestimation than overestimation of net GHG emission reductions and removal enhancements.



For verification purposes, it was required that discrepancies between the emission reductions/removal enhancements claimed by the project proponent and estimated by SCS be immaterial, i.e., be less than ACR's materiality threshold of  $\pm 5\%$ , as calculated according to the equation in the ACR Standard.

## 1.7 Summary Description of the Project

The project is located in Luce County in Michigan's Upper Peninsula and is aimed at improved forest management practices that increase carbon sequestration. Forest management decisions include sustainable, natural forest growth and maintenance harvests for essential activities, recreation, wildlife habitat and forest health.

## 2 Assessment Process

### 2.1 Method and Criteria

The validation and verification services were provided through a combination of document review, interviews with relevant personnel and on-site inspections, as discussed in Sections 2.2 through 2.4 of this report. At all times, an assessment was made for conformance to the criteria described in Section 1.2 of this report. As discussed in Section 2.5 of this report, findings were issued to ensure conformance to all requirements.

The audit team created a sampling plan following a proprietary sampling plan template developed by SCS. The audit team identified areas of "residual risk"—those areas where there existed risk of a material misstatement (see Section 1.6 above) that was not prevented or detected by the controls of the project. Sampling and data testing activities were planned to address areas of residual risk. The audit team then created a validation and verification plan that took the sampling plan into account.

### 2.2 Document Review

The GHG project plan (dated 04 February 2022; "PP") and monitoring report (dated 04 February 2022; "MR") were carefully reviewed for conformance to the validation and verification criteria. The following provides a list of additional documentation, provided by project personnel in support of the aforementioned documents, that was reviewed by the audit team.

Documentation Reviewed During the Course of Validation and Verification Activities		
Document	File Name	Ref.
Inventory Methodology	EastBranch_Carbon_Plot_Methodology_09_03_2020.pdf	1
Grossman Forestry Tree Farm Group	Grossman Forestry - 9664992 - Final Certificate - Revised.pdf	2
Forest Management Plan	EBSC_FSP_2018.pdf	3
Property Deeds	Deeds.pdf	4
Property Deed	Nat-Conservanty to EBSC deed.pdf	5

Property Deed	Banning to EBSC deed.pdf	6
Timber Prices Workbook	EastBranch_TimberPrices_02_03_22.xlsx	7
Boundary shapefile	EastBranch_Boundary_09_24_21.shp	8
Inventory plots shapefile	EastBranch_Plots_9_24_21.shp	9
Strata shapefile	EastBranch_invStrata_9_24_21.shp	10
Carbon Development & Marketing Agreement	East Branch Sportsmens Club Bluesource CDMA_FullyExecuted_Redacted.pdf	11
Calculation workbook	EastBranch_100Yr_calcs_02_04_2022.xlsx	12
Calculation workbook	EastBranch_RP_ERT_HWP_02_04_2022.xlsx	13
Calculation workbook	EastBranch_Start_RP_CO2_02_04_2022.xlsx	14
Calculation workbook	EastBranch_Regeneration_Calcs.xlsx	15
Calculation workbook/site index publication	SiteIndex_Wcores_1_25_22.xlsx, FIA_Site_Index_Carmean.pdf	16
FVS database	EastBranch_STS75.db	17
FVS database	EastBranch_STS50.db	18
FVS database	EastBranch_CC_2020.db	19
FVS output	EastBranch_CC_2020.key	20
FVS output	EastBranch_CC_2020.out	21
FVS database	EastBranch_GROW.db	22
FVS output	EastBranch_GROW.key	23
FVS output	EastBranch_GROW.out	24
FVS database	EastBranch_START.db	25
FVS output	EastBranch_SHW_2020.out	26
FVS database	EastBranch_SHW_2020.db	27
FVS output	EastBranch_STS50.out	28
FVS database	EastBranch_STS50.db	29
Regional Forestry Doc	IC4011_SustainableSoilAndWaterQualityPracticesOnForestLand_268417_7.pdf	30
Regional Forestry Doc	Michigan_BMPs.pdf	31
Regional Forestry Doc	TimberMartNorth_Vol 27 No 2.pdf	32
Regional Forestry Doc	USDA_SilvicultureGuide_NE_Hwds.pdf	33
Regional Forestry Doc	Michigan_SilvSystems.pdf	34
Greenhouse Gas Plan	EastBranch_ACR_GHGPlan_3_2_22.pdf	35
Monitoring Report	EastBranch_RP1_MonitoringReport_02_04_22.pdf	36

## 2.3 Interviews

### 2.3.1 Interviews of Project Personnel

The process used in interviewing project personnel was a process wherein the audit team elicited information from project personnel regarding (1) the work products provided to the audit team in support of the PD and MR; (2) actions undertaken to ensure conformance with various requirements and (3) implementation status of the project activities. The following provides a list of personnel associated with the project proponent who were interviewed.

Interview Log: Individuals Associated with Project Proponent			
Individual	Affiliation	Role	Date(s) Interviewed
Megan McKinley	Bluesource LLC	Project Lead	07 October 2021 13-16 October 2021 (Site Visit)
Tim Hipp	Bluesource LLC	Site Visit Logistics	07 October 2021 13-16 October 2021 (Site Visit)
Josh Clark	Bluesource LLC	Technical Lead	14 January 2022 25 January 2022 31 January 2022
Ben Parkhurst	Bluesource LLC	Technical Assistant	25 January 2022 31 January 2022

### 2.3.2 Interviews of Other Individuals

The process used in interviewing individuals other than project personnel was a process wherein the audit team made inquiries to confirm the validity of the information provided to the audit team. The following personnel not associated with the project proponent. The following provides a list of individuals not associated with the project proponent who were interviewed.

*The phrase “Throughout audit” under “Date(s) Interviewed” can be used to indicate that the individual in question was interviewed on many different occasions.*

Interview Log: Individuals Not Associated with Project Proponent			
Individual	Affiliation	Role	Date(s) Interviewed
Keith Magnusson	Michigan Department of Natural Resources – Forestry Division	Michigan State Forster - Newberry Forest Management Unit	14 December 2021

## 2.4 Site Inspections

The objectives of the on-site inspections were to evaluate:

- Ensure that data collection for sequential sampling purposes (t-test) was carried out to the highest possible quality standards and that our client was comfortable with the work being performed
- Perform field reconnaissance to independently confirm
  - That the project area has more than 10% canopy cover (or equivalent stocking)
  - Absence of any unreported disturbance or timber harvest
  - Ground-truth stratification of project area
- Independently check the accuracy of spatial information on ownership, as used in delineation of the project area, by visiting a sample of corners or other ownership monuments and comparing actual locations to mapped locations

In support of the above objectives, the audit team performed an on-site inspection of the project area on the dates 13 October 2021 through 16 October 2021. The main activities undertaken by the audit team were as follows:

- Interviewed project personnel (see Section 2.3.1 of this report) to gather information regarding the monitoring procedures and project implementation
- Carried out on-site inspections of the project's measurement and/or monitoring methodologies through the following activities:
  - Toured the project area, visually observing and taking averaged GPS coordinates at survey markers and other boundary reference locations.
  - Selected samples of inventory data using simple random selection methods.
  - At each selected sample location, took on the ground measurements.
  - Verified the sample by running a paired sample t-test on the independently calculated Mt CO<sub>2</sub>e/acre on each plot.
- Review of management's commitment to the carbon project.
- Assessment of project during the reporting period to confirm that the project scenario consists of maintaining above baseline carbon stocks through carbon sequestration.

## 2.5 Resolution of Findings

Any potential or actual discrepancies identified during the audit process were resolved through the issuance of findings. The types of findings typically issued by SCS during this type of validation and verification engagement are characterized as follows:

- Non-Conformity Report (NCR): An NCR signified a discrepancy with respect to a specific requirement. This type of finding could only be closed upon receipt by SCS of evidence indicating that the identified discrepancy had been corrected. Resolution of all open NCRs was a prerequisite for issuance of a validation and/or verification statement.
- New Information Request (NIR): An NIR signified a need for supplementary information in order to determine whether a material discrepancy existed with respect to a specific requirement.

Receipt of an NIR did not necessarily indicate that the project was not in compliance with a specific requirement. However, resolution of all open NIRs was a prerequisite for issuance of a validation and/or verification statement.

- Observation (OBS): An OBS indicates an area where immaterial discrepancies exist between the observations, data testing results or professional judgment of the audit team and the information reported or utilized (or the methods used to acquire such information) within the GHG assertion. A root cause analysis and corrective action plan are not required, but highly recommended. Observations are considered by the audit team to be closed upon issuance, and a response to this type of finding is not necessary.

As part of the audit process, 3 NCRs, 6 NIRs and 0 OBS were issued. All findings issued by the audit team during the audit process have been closed. All findings issued during the audit process, and the impetus for the closure of each such finding, are described in Appendix A of this report.

## 2.6 Techniques and Processes Used to Test the GHG Information and GHG Assertion

The audit team applied various techniques and processes to test the GHG information and the GHG assertion over the course of the audit, listed below:

- Review of project documentation including the MR, ownership documentation (Refs. 4-6), spatial information (Refs. 8-10), modeling files (Refs. 17-29), certifications (Refs. 2-3) referenced management plans (Ref. 3), and calculation workbooks (Refs. 12-16) to check for project-specific conformance to ACR standard and methodology, appropriateness of methodologies and tools applied, accuracy of GHG information and assertion.
- Assessment of any disturbances or forest management activities, including a discussion with project personnel on any harvest activities.
- Review of sources, sinks and reservoirs of GHG emissions within the project boundary.
- Assessment of eligibility, additionality, GHG emission reduction assertion and underlying monitoring data to determine if either contained material or immaterial misstatements.
- Assessment of the emission reduction calculation inputs and procedures was performed to review the quantitative analyses undertaken by Bluesource LLC to convert the raw inventory data into emission reduction estimates during the reporting period. This included a re-calculation of project emissions, ERTs, and uncertainty using inventory data as described below in section 3.1 and 3.2 (Refs. 12-16).
- Communicate with project personnel and project proponent via interviews, emails, and meetings to gain a better understanding of the project team's methodologies.
- Examine the data management and quality control processes and its controls for sources of potential errors and omissions.
- Review of project documentation including risk assessment and regulatory compliance.

## 3 Validation Findings

### 3.1 Project Boundary and Activities

#### 3.1.1 Project Boundary and Procedures for Establishment

A description of the physical boundary of the project was provided, which is located on 3,822 acres of northern hardwood forest and conifer bog in Luce County of the Upper Peninsula of Michigan state. The project land is owned and managed by East Branch Sportsman's Club. The project proponent and land are certified under the Grossman Forestry Tree Farm Group, an independent Tree Farm System (Ref. 2). The audit team confirmed that the boundaries were well documented throughout both the document review and site visit activities. During the site visit the audit team independently checked the accuracy of spatial information on ownership, as used in delineation of the project area, by visiting a sample of corners or other ownership monuments and comparing actual locations to mapped locations. Likewise, during document review the audit team inspected project shapefiles (Refs. 8-10) to confirm project boundaries are accurately represented as compared to boundaries mapped during the site visit, maps provided in the PP, and available satellite imagery.

#### 3.1.2 Physical Infrastructure, Activities, Technologies and Processes

The audit team reviewed the PP and project documentation (Refs. 35 - 36) which indicate potential infrastructure, activities, and technologies used within the project area. The project activity consists of natural forest management focusing on sustainable forest growth and regular, uneven-aged harvests as well as promotion of recreation, wildlife habitat and forest health. The audit team concluded that project activities, infrastructure and technologies will be an improvement in the carbon storage and sustainable forest practices of the area.

#### 3.1.3 GHGs, Sources, and Sinks within the Project Boundary

The GHG sources, sinks and/or reservoirs that are applicable to the Project were confirmed. The sources, sinks, and reservoirs of GHG emissions within the project boundary are listed in the table below. This is the case for both the baseline and project scenarios.

Description	Included/Excluded	Gas	Justification
Above-ground biomass carbon	Included	CO <sub>2</sub>	Major carbon pool subjected to the project activity.
Below-ground biomass carbon	Included	CO <sub>2</sub>	Major carbon pool subjected to the project activity.

Standing dead wood	Included	CO <sub>2</sub>	Major carbon pool in unmanaged stands subjected to the project activity.
Harvested wood product	Included	CO <sub>2</sub>	Major carbon pool subjected to the project activity.
Burning of biomass	Included	CH <sub>4</sub>	Non-CO <sub>2</sub> gas emitted from biomass burning. Note that no burning is planned in the project.

### 3.1.4 Temporal Boundary

The ACR Standard indicates that the project must have a validated/verified Start Date of January 1, 2000 or after. Also, in accordance with Chapter 3 of the ACR Standard, the start date is defined as the date that the Project Proponent entered a contractual relationship to implement a carbon project. SCS was able to review the PP, MR, and relevant contractual documents (Ref. 11) for authenticity and to confirm that each document consummated "a contractual relationship to implement a carbon project." SCS concluded that the documents provided indicate the project start date is eligible.

In ACR the minimum project term is 40 years and the eligible crediting period for this type of project is also listed as 40 years. SCS confirmed that the PP included a timeline with a first crediting period of 20 years and a minimum project term of 40 years.

## 3.2 Description of and Justification for the Baseline Scenario

The methodology defines the baseline scenario as an estimation of the GHG emissions or removals that would have occurred if the Project Proponent did not implement the project. The PP indicates that "The Baseline Scenario represents an aggressive harvest regime designed to maximize the annual cashflows from a 100-year Net Present Value (NPV) at a 5% discount rate, subject to operational considerations in the region. The area selection for each prescription by plot was determined using a linear programming model (*lpSolve* package), which found the combination of prescriptions that maximizes the NPV over 100 years." The audit team confirmed that the prescriptions are common in the area on private lands as well as recommended under published sources (Refs. 30-34).

During the site visit and through interviews with local managers the audit team verified that aggressive industrial timber harvesting is common practice in the region. The audit team also conducted a financial feasibility assessment of the baseline scenario by obtaining regional stumpage rates to independently verify NPV. SCS determined that the harvesting rate indicated in the baseline scenario would be feasible.

### 3.3 Project-Specific Conformance to ACR Eligibility Criteria

The audit team reviewed the demonstration of conformance, as set out in the PP, to each of the relevant eligibility criteria listed in the ACR Standard. The audit team confirmed the full conformance of the project with the relevant eligibility criteria. A more detailed assessment of the audit team's findings is provided below.

Actions Undertaken to Confirm Conformance to Eligibility Criteria		
Criterion	ACR Requirement	Validation Activities
Start Date, All Projects	Non-AFOLU Projects must be validated within 2 years of the project Start Date. AFOLU Projects must be validated within 3 years of the project Start Date.	Confirmation that this report was issued less than 3 years after 01 July 2020, the start date of the project according to the PP.
Start Date Definition, Non-AFOLU Projects	ACR defines the Start Date for all projects other than AFOLU as the date on which the project began to reduce GHG emissions against its baseline.	Not applicable; this project is an AFOLU project.
Start Date Definition, AR or Wetland Projects	For AR or Wetland restoration/revegetation projects, the Start Date is when the Project Proponent began planting or site preparation.	Not applicable; the project is not an AR or wetland project.
Start Date Definition, IFM Projects	For IFM, the Start Date may be denoted by one of the following: 1. The date that the Project Proponent began to apply the land management regime to increase carbon stocks and/or reduce emissions relative to the baseline. 2. The date that the Project Proponent initiated a forest carbon inventory. 3. The date that the Project Proponent entered into a contractual relationship to implement a carbon project. 4. The date the project was submitted to ACR for listing review. Other dates may be approved by ACR on a case by case basis.	The start date is 01 July 2020, the date by which of the contractual signing agreement between the Project Proponent (East Branch Sportsmen's Club) and the Offset Developer (Blue Source LLC) was completed.
Start Date Definition, Avoided Conversion Projects	For Avoided Conversion of non-forest, the Start Date is when the Project Proponent implemented the project action physically and/or legally, such as securing a concession or placing a land conservation agreement on the project land.	Not applicable; the project is not an avoided conversion project.
Start Date Definition, Other Agricultural	For other Agricultural Land-based projects, the Start Date is the date by which the Project Proponent began the Project Activity on project	Not applicable; the project is not another agriculture land-based project.



Land-based Projects	lands, or the start of the cultivation year during which the Project Activity began.	
Minimum Project Term (AFOLU Projects Only)	Project Proponents of AFOLU projects with a risk of reversal shall commit to a Minimum Project Term of 40 years. The minimum term begins on the Start Date, not the first or last year of crediting. This requirement applies only to AFOLU projects that have had ERTs issued that are associated with GHG removals (sequestration). AFOLU projects that have claimed only avoided emissions are not subject to this requirement.	Review of the PP to confirm that the minimum term is 40 years, as required.
Crediting Period	<p>The Crediting Period for non-AFOLU projects shall be 10 years.</p> <p>All AR projects shall have a Crediting Period of 40 years.</p> <p>All IFM projects shall have a Crediting Period of 20 years.</p> <p>Avoided Conversion projects on both forest and non-forest land with land conservation agreements in place shall have a Crediting Period of 40 years, unless otherwise specified in chosen methodologies.</p> <p>Wetland Restoration/Revegetation projects shall have a Crediting Period of 40 years.</p> <p>The Crediting Periods for agriculture projects that avoid emissions by changing to lower GHG practices and those that include a soil sequestration component will be specified in the applicable methodology.</p>	Review of the PP to confirm that the crediting period is 20 years, as required given the project type.
Real	<p>GHG reductions and/or removals shall result from an emission mitigation activity that has been conducted in accordance with an approved ACR Methodology and is verifiable.</p> <p>ACR will not credit a projected stream of offsets on an ex-ante basis.</p>	Review of the emission mitigation activity, as described in the PP, to confirm that it conforms to the requirements of the methodology and will be verifiable if implemented as described.
Emission or Removal Origin (Direct Emissions)	The Project Proponent shall own, have control over, or document effective control over the GHG sources/sinks from which the emissions reductions or removals originate. If the Project Proponent does not own or control the GHG sources or sinks, it shall document that effective control exists over the GHG sources and/or sinks from which the reductions/ removals originate.	Reviewed the supporting documentation, as described in the PP, and a sample of the ownership documentation provided (Refs 4-6) to confirm that Project Proponent have control over the GHG sources/sinks from which the emissions reductions or removals originate on their respective properties. Evidence of land title for each parcel in the project area was provided and confirmed (Refs.4-6).

Emission or Removal Origin (Indirect Emissions)	<p>For projects reducing or removing non-energy indirect emissions, the following requirement applies:</p> <p>The Project Proponent shall document that no other entity may claim GHG emission reductions or removals from the Project Activity (i.e., that no other entity may make an ownership claim to the emission reductions or removals for which credits are sought).</p>	Not applicable; the project is not reducing or removing non-energy indirect emissions.
Offset Title (All Projects)	The Project Proponent shall provide documentation and attestation of undisputed title to all offsets prior to registration. Title to offsets shall be clear, unique, and uncontested.	<p>Reviewed land title documents (Refs. 4-6) along with an independent review of ownership using the Landgrid Survey database which included property data, county assessor data, and up to date maps. Additionally, on site, various property survey markers were confirmed the accuracy of the associated boundary claimed.</p> <p>Additionally, it was confirmed that the area defined as the project is not currently listed under any other GHG programs or registries. The GHG plan states “The area defined by the Bluesource – East Branch Improved Forest Management project was previously registered and issued credits through the Chicago Climate Exchange (CCX). All previously issued credits have been retired.” The project was confirmed to have had previous credit issuance under the Chicago Climate Exchange Program. This exchange program no longer exists and does not represent a risk of double counting under the ACR standard.</p>
Land Title (AFOLU Projects Only)	<p>For U.S. projects with GHG emissions reductions resulting from terrestrial sequestration, Project Proponents shall provide documentation of clear, unique, and uncontested land title. For international projects, Project Proponents shall provide documentation and/or attestation of land title; ACR may require a legal review by an expert in local law.</p> <p>Land title may be held by a person or entity other than the Project Proponent, provided the Project Proponent can show clear, unique, and uncontested offsets title.</p> <p>AFOLU projects that result only in the crediting of avoided emissions with no risk of reversal may not require demonstration of land title.</p>	
Additional	<p>Every project shall use either an ACR-approved performance standard and pass a regulatory surplus test, or pass a three-pronged test of additionality in which the project must:</p> <ol style="list-style-type: none"> <li>1. Exceed regulatory/legal requirements;</li> <li>2. Go beyond common practice; and</li> <li>3. Overcome at least one of three implementation barriers: institutional, financial, or technical.</li> </ol>	Confirmation that the project meets all relevant additionality requirements (see Section 3.4 below for more details).
Regulatory Compliance	Projects must maintain material regulatory compliance. To do this, a regulatory body/bodies	After performing extensive regulatory compliance checks during this reporting

	<p>must deem that a project is not out of compliance at any point during a reporting period. Projects deemed to be out of compliance with regulatory requirements are not eligible to earn ERTs during the period of non-compliance. Regulatory compliance violations related to administrative processes (e.g., missed application or reporting deadlines) or for issues unrelated to integrity of the GHG emissions reductions shall be treated on a case-by-case basis and may not disqualify a project from ERT issuance. Project Proponents are required to provide a regulatory compliance attestation to a verification body at each verification. This attestation must disclose all violations or other instances of non-compliance with laws, regulations, or other legally binding mandates directly related to Project Activities.</p>	<p>period, the audit team found one activity on file with OSHA which is not categorized as a violation. In addition, the audit team found four listings with The Michigan Department of Natural Resources and the Michigan Department of Environment, Great Lakes, and Energy (EGLE) regarding expired permits on or near the project boundary, however, none of these listings or permits are forestry-related, therefore it was determined that this finding is insignificant for the assessment of regulatory compliance of this project. EPA and ECHO were also checked, and no violations were observed. Finally, a forester was interviewed about any regulatory compliance issues on the project area, forestry practices, and a discussion of the regional forestry trends and activity. The audit team also reviewed the regulatory compliance section of the MR submitted (Ref. 36).</p>
Permanence (All AFOLU Projects)	<p>AFOLU Project Proponents shall assess reversal risk using ACR's Tool for Risk Analysis and Buffer Determination, and shall enter into a legally binding Reversal Risk Mitigation Agreement with ACR/Winrock that details the risk mitigation option selected and the requirements for reporting and compensating reversals.</p>	<p>Confirmed a total risk percentage of 18% using the ACR Tool for Risk Analysis and Buffer Determination as required by the ACR methodology.</p>
Permanence (Terrestrial Sequestration, Avoided Conversion Projects)	<p>Proponents of terrestrial sequestration or avoided conversion projects shall mitigate reversal risk by contributing ERTs to the ACR Buffer Pool or using another ACR-approved insurance or risk mitigation mechanism.</p>	<p>Confirmed a total risk percentage of 18% using the ACR Tool for Risk Analysis and Buffer Determination as required by the ACR methodology.</p>
Permanence (Geologic Sequestration Projects)	<p>Proponents of geologic sequestration projects shall mitigate reversal risk during the project term by contributing ERTs to the ACR Reserve Account and post-project term by filing a Risk Mitigation Covenant, which prohibits any intentional reversal unless there is advance compensation to ACR, or by using another ACR-approved insurance or risk mitigation mechanism.</p>	<p>Not applicable; the project is not a geologic sequestration project.</p>
Permanence (All Projects)	<p>All projects must adhere to ongoing monitoring, reversal reporting, and compensation requirements as detailed in relevant methodologies and legally binding agreements</p>	<p>Confirmed that section D of the PP includes a detailed Monitoring Plan relevant to the methodology.</p>

	(e.g., the ACR Reversal Risk Mitigation Agreement).	
Net of Leakage	<p>ACR requires Project Proponents to address, account for, and mitigate certain types of leakage, according to the relevant sector requirements and methodology conditions. Project Proponents must deduct leakage that reduces the GHG emissions reduction and/or removal benefit of a project in excess of any applicable threshold specified in the methodology.</p>	<p>Confirmed that a 40% leakage deduction, was applied which is consistent with market-leakage per the methodology. The PP indicates that “Quantification of leakage is limited to market leakage. Activity-shifting leakage is not applicable because all forestlands owned by East Branch Sportsman’s Club are certified under the American Tree Farm System and included in the project.</p> <p>Market leakage was determined by quantifying the merchantable carbon removed in both the baseline and with-project cases. Carbon in long-term storage in in-use wood products and landfills, calculated above, was used to assess relative amounts of “total wood products produced” in the two scenarios. The decrease in wood production relative to the baseline was then calculated and the applicable market leakage discount factor was determined.” The audit team verified the calculations (Refs. 12-16), management plan (Ref. 3), and the Tree Farm certification (Refs 2). Findings were issued to confirm that no leakage occurred on lands outside of the project area. The audit team verified that the PP does not own land outside of the project area.</p>
Independently Validated	ACR requires third-party validation of the GHG Project Plan by an accredited, ACR-approved VVB once during each Crediting Period and prior to issuance of ERTs.	The PP has been independently validated by SCS, an accredited, ACR-approved validation/verification body.
Independently Verified	Verification must be conducted by an accredited, ACR-approved VVB prior to any issuance of ERTs and at minimum specified intervals.	The PP has been independently verified by SCS, an accredited, ACR-approved validation/verification body.
Environmental And Community Assessments	<p>ACR requires that all projects develop and disclose an impact assessment to ensure compliance with environmental and community safeguards best practices. Environmental and community impacts should be net positive, and projects must “do no harm” in terms of violating local, national, or international laws or regulations.</p> <p>Project Proponents must identify in the GHG Project Plan community and environmental</p>	Confirmed by reviewing the PP and management plans (Refs. 3) indicate that the project has no anticipated negative community or environmental impacts.

	impacts of their project(s). Projects shall also disclose and describe positive contributions as aligned with applicable sustainable development goals. Projects must describe the safeguard measures in place to avoid, mitigate, or compensate for potential negative impacts, and how such measures will be monitored, managed, and enforced.	
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### 3.4 Demonstration of Additionality

The audit team reviewed the demonstration of additionality, as set out in the PP, and confirmed that the additionality requirements set out in the ACR Standard have been met. A more detailed assessment of the audit team's findings is provided below.

#### 3.4.1 Regulatory Surplus Test

A regulatory review of the Project was conducted by the audit team. There are no laws, statutes, regulations, court orders, environmental mitigation agreements, permitting conditions, or other legally binding mandates requiring the project activities.

#### 3.4.2 Performance Standard Test

Not applicable.

#### 3.4.3 Common Practice Test

The Project showed that similarities exist with the project and nearby private industrial forestland in the region. During the site visit through interviews with local managers and review of published data for the region, the audit team verified that aggressive timber harvesting practices involving the silvicultural prescriptions claimed in the baseline scenario are common practice in the region.

#### 3.4.4 Implementation Barriers Test

The "financial barrier" option was chosen by the project proponent as an implementation barrier. SCS Global Services received guidance from ACR personnel, in an email dated 06 June 2019, stating the following:

*The intent of the financial implementation barrier test encompasses the interpretation and wording in Table 2, in which "carbon funding is reasonably expected to incentivize the implementation of the project scenario", yielding increased carbon stocks compared to the baseline. A quantitative assessment demonstrating forgone profit as a result of employing the project scenario suffices for passing this test.*

Given this guidance, a financial barrier was demonstrated through a quantitative assessment demonstrating foregone profit as a result of employing the project scenario (i.e., demonstrating that the

net present value of the baseline scenario was higher than the project net present value of the project scenario). The audit team's findings regarding this assessment are provided below.

The PP indicates that "Carbon funding is reasonably expected to incentivize the project's implementation. The implementation of the carbon project represents an opportunity cost to lost revenue associated with the potential timber harvesting that could legally and feasibly occur on the property in the lifetime of the carbon project. A financial feasibility assessment is provided separately for verification demonstrating the financial barrier carbon funding overcomes in project implementation."

The audit team independently conducted a financial feasibility assessment by using local stumpage prices to verify that the baseline scenario could feasibly occur in the project area in the lifetime of the carbon project if the project was not implemented. This was combined with qualitative checks to confirm the feasibility of harvest types, local timber market demands, and conversations with local foresters in the region to confirm common practice.

## **3.5 Processes for Emission Reductions/Removal Enhancements Quantification**

### **3.5.1 Methods, Algorithms, and Calculations To Be Used to Generate Estimates of Emissions and Emission Reductions/Removal Enhancements**

The audit team validated the methodologies applied to quantify GHG emissions and emission reductions in the baseline and project scenarios. The objective was to determine whether the methods are clearly defined with supporting documentation, appropriate for accurately quantifying each data parameter, applied consistently, and result in a conservative estimate of GHG emissions reductions and removal enhancements.

Section 4.2 provides further detail on the methods, algorithms, and calculations used to generate and validate emissions reductions estimates.

### **3.5.2 Process Information, Source Identification/Counts, and Operational Details**

The forest inventory serves as the primary source of data and information used to quantify emissions reductions. The PP and inventory methodology (Ref. 1) describe the process including sample size, determination of plot numbers, plot layout, data collected, and measurement techniques. Through a site visit and document review (Refs. 1, 13-14), the audit team verified the forest inventory methodologies and application.

The inventory data was then run within the Forest Vegetation Simulator with baseline prescriptions to project the baseline condition and a grow-only scenario to estimate the project scenario. The audit team confirmed that the baseline prescriptions were feasible and representative of common practice conditions in the region (see section 3.4.2).

### 3.5.3 Data Management Systems

SCS verified the data management systems put in place by the project personnel as described in the PP. It states that “Manually and electronically filed data are stored and archived. Backup copies of all electronically stored data are maintained in a separate data center with scheduled archiving to assure data protection. Future revisions to project documents after initial verification and registration will be clearly identified by saving them as separate files and including the date of revision in any modified documents. All data will be stored on Dropbox or similar online cloud storage service as well as on an external hard drive and kept by Bluesource for a minimum of 15 years.”

### 3.5.4 QA/QC Procedures

Section D of the PP identifies field and desk QA/QC procedures. The field QA/QC procedures include senior forester review of field collected data and remeasurement of any plots that cannot be reconciled. Further the PP states that “At least 5% of the plots will be checked by a different forester than cruised the plot, preferably by someone senior to the field crew. This will involve full plot measurement to identify any problems with determining in/out trees, species calls, defect measurements, DBH measurements, and height measurements. Any errors noted during the check cruise will be used to update the master spread sheet file. Any consistent height, species, DBH, or defect errors will be resolved by talking with the foresters and removing crew members if need be.” These field QA/QC procedures were confirmed on-site and during interviews.

The PP identifies three stages of desk QA/QC procedures including an independent forester review, a technical review, and a senior management review. These include independent checks on the inventory data, model runs, carbon calculations, and document text and formatting.

The QA/QC procedures and the quantification approach employed by the project team conform to the parameters and quantification methods required by the Methodology. SCS determined that the Project Proponent sufficiently documented and quantified each parameter. Section D of the PP also provides in detail a monitoring and data management plan for each parameter throughout the reporting period.

### 3.5.5 Processes for Uncertainty Assessments

The PP describes how baseline and project uncertainty were calculated. The PP states that uncertainty in the combined carbon stocks in the baseline is quantified using equation 10 of the methodology (Refs. 35-36). The percentage uncertainty in the combined carbon stocks in the project during the reporting period is calculated using equation 18 of the methodology (Refs. 35-36). The total project uncertainty (percentage) during the reporting period is quantified using equation 19 of the methodology (Ref. 35-36). SCS confirmed that the approaches for assessing uncertainty that are identified in the PP are in conformance with the quantification methods required by the Methodology.

Further detail on uncertainty quantification is in sections 4.1.

## 4 Verification Findings

### 4.1 Results of Quantitative Uncertainty Assessment

SCS devoted a portion of the verification assessment to the review of the manner and propriety by which the project proponent quantified uncertainty associated with the individual GHGs in the project, in addition to the uncertainty of the calculation of GHG emission reductions and removals.

The audit team also calculated the total materiality of the GHG reduction and removal assertion.

#### 4.1.1 Project Uncertainty

The reported total Project Uncertainty ((UNC<sub>t</sub>) value of 5.62% value reported by the client for 2021 was independently re-quantified by SCS using equation 19 in the methodology. The audit team found this difference reasonable and immaterial.

Year	UNC <sub>t</sub> Client Values	UNC <sub>t</sub> SCS Values	Difference
2021	5.62%	5.61%	0.01%

*Note: final numbers are rounded for simplicity.*

#### 4.1.2 Materiality

The total materiality of the GHG reduction and removal assertion was also calculated for the reporting period.

$$\% \text{ Error} = \frac{(\text{Project Emission Reduction Assertion} - \text{Verifier Emission Reduction Recalculation})}{\text{Verifier Emission Reduction Recalculation}} * 100$$

$$\% \text{ Error} = \frac{(43,397 - 43,286)}{43,286} * 100 = \frac{111}{43,286} * 100 = -0.26\%$$

### 4.2 Analysis of the Quantification Methodologies and Applicable Data Sets and Sources

The audit team re-quantified project emissions, emissions reductions, and project uncertainty from the raw inventory data provided by the client. This process entailed verifying that the methods detailed in the MR were applied as indicated. The team confirmed the emissions reductions by conducting the following analyses:

- Calculate the start and end of reporting period diameter of individual trees.



- Recalculate the live aboveground, live belowground, and standing dead carbon pools using Jenkins equations and decay class information.
- Calculate the change in project carbon stock stored in above and below ground live trees using equation 11 in the methodology
- Calculate the change in project carbon stock stored in above ground dead trees using equation 12 in the methodology
- Calculate any greenhouse gas emission resulting from the implementation of the project in the reporting period using equation 13 in the methodology
- Calculate the change in the project carbon stock and GHG emissions during the reporting period using equation 14 in the methodology.
- Calculate the percentage uncertainty in the combined carbon stocks in the project during the reporting period using equation 18 in the methodology
- Calculate the total project uncertainty (percentage) during the reporting period using equation 19 in the methodology.
- Calculate the net greenhouse gas emission reductions (in metric tons CO<sub>2</sub>e) during the reporting period and during each annual vintage using equation 20 in the methodology.

### 4.3 Basis of Data and Information Supporting the GHG Assertion

The following table indicates whether the data and information supporting the GHG assertion were based on assumptions and industry defaults, future projections, and/or actual historical records.

Assumptions and Industry Defaults	<input checked="" type="checkbox"/>
Future Projections	<input checked="" type="checkbox"/>
Actual Historical Records	<input checked="" type="checkbox"/>

### 4.4 Leakage Assessment

Section E3 of the GHG Plan states: “Quantification of leakage is limited to market leakage. Activity-shifting leakage is not applicable because all forestlands owned by East Branch Sportsman’s Club are certified under the American Tree Farm System and included in the project.” The audit team verified the calculations (Refs. 12-16) provided in both the baseline and project scenarios to confirm the decrease in wood production relative to the baseline. The audit team also reviewed the forest management plan (Ref. 3), verified the Tree Farm certification (Refs 2), and verified that the project proponent does not own land outside of the project area (see findings).

SCS confirmed that the applicable market leakage factor of 0.4 was applied.

## 4.5 Risk Assessment

The reported value of the total risk score, as determined based on the risk analysis documented in the PP and MR, was 18%. The audit team performed a complete review of the risk assessment against the requirements of the ACR Tool for Risk Analysis and Buffer Determination. The audit team concludes that the assignment of risk scores is appropriate and in conformance to the ACR Tool for Risk Analysis and Buffer Determination. A more detailed review of the audit team's conclusions may be found below.

Actions Undertaken to Evaluate Whether the Risk Assessment Has Been Conducted Correctly		
Risk Category	Value Selected	Verification Activities
A	4%	Confirmation, through site inspections, that project is not located on public or tribal lands
B	4%	Confirmation, through site inspections, that project is not located on public or tribal lands
C	2%	Confirmation, through site inspections, that the project is not located outside the United States
D	0%	The project has not entered a conservation easement
E	2%	Confirmation, through interviews with local personnel and/or foresters and review of fire maps, that the project has a low fire risk
F	4%	Confirmation, through research of local forest health publications, that the project is not affected by diseases and pests
G	0%	Confirmation, through site inspections, that project is not a wetland project or a forest project where more than 60% of the project area is not a forested wetland
H	2%	Confirmation that default value has been applied in the risk assessment calculation

## 5 Conclusion

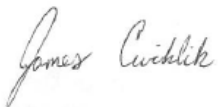

The audit team asserts, with no qualifications or limitations, that the quantification of GHG emission reductions and/or removal enhancements, as reported in the MR, conforms to the verification criteria and is without material discrepancy.

The following provides a summary of the ERT issuance for the current Reporting Period with the Leakage deduction included and the Buffer deductions excluded (Gross ERTs):

Annual Emission Reduction in Metric Tons (tCO <sub>2</sub> e) during Reporting Period 1			
Vintage	Start Date	End Date	Gross GHG Emission Reductions (tCO <sub>2</sub> e)
2020	1 July 2020	31 December 2020	26,680
2021	1 January 2021	30 June 2021	26,244

The following provides a summary of the ERT issuance for the current Reporting Period with the Leakage and the Buffer deduction included (Buffer credits shown separately):

Annual Emission Reduction in Metric Tons (tCO <sub>2</sub> e) during Report Period 1				
Vintage	Start Date	End Date	Net GHG Emission Reductions (tCO <sub>2</sub> e)	Quantity of Buffer Credits (tCO <sub>2</sub> e)
2020	1 July 2020	31 December 2020	21,877	4,803
2021	1 January 2021	30 June 2021	21,520	4,724

Lead Auditor Approval	 James Cwiklik, 3 March 2022
Internal Reviewer Approval	 Alexa Dugan, 3 March 2022

## Appendix A: List of Findings

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Please see Section 2.5 above for a description of the findings issuance process and the categories of findings issued. It should be noted that all language under “Project Personnel Response” is a verbatim transcription of responses provided to the findings by project personnel.

## 5.1

### **NIR 1 Dated 23 Dec 2021**

**Standard Reference:** IFM methodology, Errata and Clarifications for ACR IFM Methodology v1.3

**Document Reference:** EastBranch\_ACR\_GHGPlan\_12\_10\_21.pdf

**Finding:** The Errata and Clarifications for ACR IFM Methodology v1.3 specifies states:

"There may be no leakage beyond de minimis levels through activity shifting to other lands owned, or under management control, by the timber rights owner. If the project decreases wood product production by >5% relative to the baseline then the Project Proponent and all associated land owners must demonstrate that there is no leakage within their operations – i.e., on other lands they manage/operate outside the bounds of the ACR carbon project. This demonstration is not applicable if Project Proponent and associated landowners enroll all of their forested landholdings, owned and under management control, within the ACR carbon project."

This is applicable as the project decreases wood product production more than 5% relative to the baseline. This new information request is to determine if the project proponent, East Branch Sportsman's Club, has enrolled all of their forested landholdings in the project. If they own additional forested landholdings outside of the project, please demonstrate one or more of the following:

- Entity-wide management certification that requires sustainable practices (programs can include FSC, SFI, or ATFS). Management certification must cover all entity owned lands with active timber management programs;
- Adherence to an ACR approved long-term forest management plan or program as specified in section A.2;
- Forest management plans prepared ≥24 months prior to the start of the project showing harvest plans on all owned/managed lands paired with records from the with-project time period showing no deviation from management plans; or
- Historical records covering all Project Proponent ownership trends in harvest volumes paired with records from the with-project time period showing no deviation from historical trends over most recent 10-year average.

Please provide clarification if the project proponent has enrolled all their forested landholdings in the project. Additionally, please provide the claimed American Tree Farm certification.

**Project Personnel Response:** The entirety of the proponent's ownership is indeed included in the project area. They are certified through a group certificate managed by Grossman Forestry via the American Tree Farm System. This evidence has been provided in the shared folder ('PropertyDocs').

**Auditor Response:** Thank you for the certification documents. This finding is closed.

**Bearing on Material Misstatement or Conformance (M/C/NA):** C

**NIR 2 Dated 23 Dec 2021****Standard Reference:** ACR Standard v6.0**Document Reference:** EastBranch\_ACR\_GHGPlan\_12\_10\_21.pdf**Finding:** Table 4, Eligibility Criteria of the ACR Standard states under Start Date definition "3. The date that the Project Proponent entered into a contractual relationship to implement a carbon project."

The GHG Plan states "The project start date of July 1, 2020 coincides with the signing of the Carbon Marketing & Development Agreement between East Branch Sportsmen's Club and Bluesource. This has been provided separately for verification purposes."

Please provide this agreement for verification.

**Project Personnel Response:** The agreement has been added to the shared verification folder ('PropertyDocs').

**Auditor Response:** The agreement has been provided for verification. This finding is closed.

**Bearing on Material Misstatement or Conformance (M/C/NA):** C

**NIR 3 Dated 23 Dec 2021**

**Standard Reference:** IFM methodology, Errata and Clarifications for ACR IFM Methodology v1.3

**Document Reference:** EastBranch\_RP\_ERT\_HWP\_12\_09\_2021.xlsx

EastBranch\_100Yr\_calcs\_12\_07\_2021.xlsx

EastBranch\_ACR\_GHGPlan\_12\_10\_21.pdf

**Finding:** Section 3.2 of the IFM methodology displays the 5 steps required to account for the harvesting of trees to determine carbon stored in wood products in the baseline and project scenarios.

The GHG plan states "The actual project scenario is measured through future inventories over the course of the project lifetime. However, we produce an ex-ante projection of the project scenario assuming the landowner will conduct the harvest types described in Section A6.2." However, table E6-1 Project Carbon Stocks displays a zero value for CO<sub>2</sub>e from harvested wood products every year in the crediting period.

Likewise, the ERT workbook states zero for harvested wood products in the first crediting period for the project scenario. The calculations in the "Actual\_20YR\_HWP\_Step1\_2\_3" tab in the ERT workbook shows projected harvest values using the IFM methodology, however, the next tab "Actual\_20YR\_Step\_4\_5" tab does not reference the first three steps but rather links to the Actual values for RP1 (see cell B13 in Step\_4\_5). Additionally, in the 100Yr workbook, "Proect\_WoodProducts" tab, shows values harvested, however they are labelled as Baseline values.

The "EastBranch\_100Yr\_calcs" workbook also has tabs that calculate harvests for the project scenario, including revenue and wood product type, but are not included in the financial analysis.

Overall, the audit team needs clarification if the project intends on harvesting as stated in the GHG plan and workbooks referenced. Section 3.2 needs to be followed for the 20Yr project calcs to be in conformance with the methodology. Please provide clarification or justification as to why the project scenario harvests aren't included in the GHG plan and financial assessment of the project.

**Project Personnel Response:** Table E6-1 in the GHG plan and the corresponding Table in GHG\_Plan\_Tables of the ERT Workbook have been fixed to accurately represent the ex-ante projections of ongoing harvesting in the project area. This update was done by referencing Columns B - N : row 13 in "Actual\_20YR\_Step\_4\_5" as suggested in the finding to the corresponding cells in "Actual\_20YR\_HWP\_Step\_1\_2\_3". These tables now accurately show that the landowner retains the right to harvest and that has been accounted for in our estimations and financial assessments of the project.

**Auditor Response:** The updates reflect accurately the lack of harvests in the 1st reporting period between the GHG plan and corresponding workbooks. It also makes clear that the landowner has the right to harvest if they choose to do so. This finding is now closed.

**Bearing on Material Misstatement or Conformance (M/C/NA):** M/C

**NIR 4 Dated 23 Dec 2021**

**Standard Reference:** IFM methodology, Errata and Clarifications for ACR IFM Methodology v1.3

**Document Reference:** EastBranch\_RP\_ERT\_HWP\_12\_09\_2021.xlsx

EastBranch\_100Yr\_calcs\_12\_07\_2021.xlsx

EastBranch\_ACR\_GHGPlan\_12\_10\_21.pdf

**Finding:** The methodology states "Required inputs for the project NPV calculation include the results of a recent timber inventory of the project lands, prices for wood products of grades that the project would produce, costs of logging, reforestation and related costs, silvicultural treatment costs, and carrying costs."

The GHG plan states "Stumpage prices were sourced from Timber Mart North Price Report – Volume 27, No. 2 (2021)."

Please provide the Timber price report referenced in the GHG plan above for verification.

**Project Personnel Response:** This has been uploaded to the shared verification folder ('RegionalForestryDocs').

**Auditor Response:** Thank you for providing the requested Stumpage price report. When SCS reviewed the stumpage report and the Stumpage\_Prices tab used in the EastBranch\_100Yr\_calcs file it was noticed that some of the pulp prices were not matching the prices reported in the stumpage report. The values in the Stumpage\_Prices tab are hard pasted in so SCS cannot assess how the prices were calculated.

Please provide clarification as to the methods used to determine the stumpage prices for the pulp species. The finding remains open.

**Project Personnel Response 2:** Pulp Prices have been updated to accurately account for species group level conversion factors cited in the Timber Mart North report. The species groups and conversion factors applied for each species found in the project can be seen in 'EastBranch\_TimberPrices\_02\_03\_22.csv' columns G-H. The conversion was a straight multiplication from the cited per cord price to translate into the per ton price used in baseline and project scenario modelling.

**Auditor Response 2:** The audit team reviewed the updates made to the stumpages prices and the subsequent changes to the NPV/Financial calculations. The finding is now closed.

**Bearing on Material Misstatement or Conformance (M/C/NA):** M/C



**NIR 5 Dated 23 Dec 2021**

**Standard Reference:** IFM methodology, Errata and Clarifications for ACR IFM Methodology v1.3

**Document Reference:** EastBranch\_100Yr\_calcs\_12\_07\_2021.xlsx

**Finding:** The methodology states "Required inputs for the project NPV calculation include the results of a recent timber inventory of the project lands, prices for wood products of grades that the project would produce, costs of logging, reforestation and related costs, silvicultural treatment costs, and carrying costs."

The methodology also states "The ISO 14064-2 principle of conservativeness must be applied for the determination of the baseline scenario. In particular, the conservativeness of the baseline is established with reference to the choice of assumptions, parameters, data sources and key factors so that project emission reductions and removals are more likely to be under-estimated rather than over-estimated, and the reliable results are maintained over a range of probable assumptions."

During the review of the financial analysis, it was noticed that a \$5 per acre management cost is used to represent all management costs (forester's travel to/from job site, boundary lines (property/sale/unit), timber marking/paint, etc.). Additionally, it was noted in the financial analysis and GHG plan that "It is assumed that all variable management costs are included in the stumpage estimate."

This information request is to request sources for the assumptions in the financial analysis noted above. Specifically, the \$5/acre management cost and assumption that all variable management costs are included in the stumpage estimate. Please demonstrate how these assumptions follow the principle of conservativeness and do not overestimate the project's financial feasibility or the project's emission reductions.

**Project Personnel Response:** \$5/acre/year is a typical cost we see for the region. We reached out to confirm with the landowner and they provided a 5-year average of \$10.43/acre/year. This includes carrying costs (taxes, insurance), as well as other miscellaneous annual costs absent of harvesting. We have updated the 100-Year calcs where this fixed cost is used in the NPV analysis, as well as the cell adjacent noting which costs are included in this value. The value is intended to be annual costs that do not fluctuate with timber management levels (ie, taxes, insurance, typical road maintenance, boundary line enforcement, etc).

Stumpage is assumed to include all variable costs that are associated with timber management. This assumption is rooted in the fact that stumpage is reported as the net value of the wood product. Variable costs associated with timber harvest, such as marking, logging, and hauling the timber, have been netted from this value. TimberMart is the best available data we have with regard to stumpage. It is publicly available and contributed to by various sources, making it an accurate representation of a regional average across products.

**Auditor Response:** Thank you for the clarification on the management costs. This finding is now closed.

**Bearing on Material Misstatement or Conformance (M/C/NA):** C

**NIR 6 Dated 1 Feb 2022****Standard Reference:** ACR Standard v6.0

Section 2.B.6 - Managing Data Quality

**Document Reference:** EastBranch\_ACR\_GHGPlan\_1\_19\_22.pdf

**Finding:** During the review of the silvicultural prescriptions run in the baseline modeling process, it was noticed that a few discrepancies exist between the GHG plan (Table E1-7) and the associated FVS outfiles. Below highlights the noted discrepancies. This information request is to understand whether the GHG plan information is accurate or if the model outfiles are accurate. Section 2.B.6 of the ACR standard states "The Project Proponent shall establish and apply quality assurance and quality control procedures to manage data and information, including the assessment of uncertainty in the project and baseline scenarios." It would appear that the QA/QC procedures did not catch the following discrepancies.

1. The GHG Plan states "STS75BA (Single Tree Selection) - Harvest to basal area of 75 square feet; Q-factor = 1.4; Subsequent removal of all trees > 40 inches DBH; Natural sprouting and regeneration; Stand basal area > 100 square feet; Constrained to occur at most every 10 years; Merchantable timber > 600 cubic feet per acre. This prescription applies to all constrained acres (i.e., RMZ areas)."

The "EastBranch\_STS75.OUT" states

"THINQFA DATE/CYCLE= 0; PARMS(6, 40, ALL, 1.4, 2, 50, 0)"

Which states a residual density of 50 instead of 75 square feet as stated in the GHG plan.

2. The GHG plan states "STS50BA (Single Tree Selection) - Harvest to basal area of 50 square feet; Q-factor = 1.4; Subsequent removal of all trees > 40 inches DBH; Natural sprouting and regeneration; Stand basal area > 100 square feet; Constrained to occur at most every 10 years; Merchantable timber > 600 cubic feet per acre. This prescription applies to all constrained acres (i.e., RMZ areas)."

The "EastBranch\_STS50.OUT" states:

"THINQFA DATE/CYCLE= 0; PARMS(6, 40, ALL, 1.4, 2, 75, 0)"

Which states a residual density of 75 instead of 50 square feet as stated in the GHG plan.

3. The GHG plan states "CC (clearcut) - Residual basal area for clearcut=0; No residual overstory trees; Natural sprouting and regeneration. Stand basal area > 80 square feet per acre; Merchantable timber > 600 cubic feet per acre; Constrained to occur at most every 40 years. Constrained to occur only on 250 acres per year. Precommercial thin 10 years after the first cut to residual trees per acre of 450. Commercial thin 20 years after the first cut to residual trees per acre of 450. This prescription applies only to softwood and spruce-fir strata."

The "EastBranch\_CC\_2020.OUT" states:

"THINATA DATE/CYCLE= 25; PARMS(450,1,0,999,0,999)"

Which states a thinning from above at cycle 25 instead of 20 as stated in the GHG plan.

The verification team is concerned that various other errors could be present in the GHG plan versus what was run in the modelling process. Please review and update the appropriate documents so that they are reflective of the work done.

**Project Personnel Response:** Discrepancies 1 & 2: These factors are correct in the GHG plan (i.e., STS75BA indicates a residual BA of 75). However, in the FVS prescriptions, these values were inadvertently swapped in FVS. In the previous FVS simulation STS75BA had a residual BA of 50, and STS50BA had a residual BA of 75. These FVS prescriptions have now been swapped, the STS75BA prescription has a residual BA of 75, and the STS50BA prescription has a residual BA of 50. Only the names were swapped, the same set of prescriptions are still used in FVS. The FVS files have been re-uploaded to the verification folder with the intended naming convention. The FVS model and the GHG plan now have the same residual basal area.

Discrepancy 3: The GHG plan was incorrect and has been updated. The GHG plan now states that the Commercial thin is 25 years after the first cut.

**Auditor Response:** The three listed discrepancies have been addressed, this included changes to the GHG plan and Model run naming convention. This finding is now closed.

**Bearing on Material Misstatement or Conformance (M/C/NA):** C

#### **NCR 7 Dated 3 Feb 2022**

**Standard Reference:** ACR Standard v6.0

2.A Guiding Principles for GHG Accounting

**Document Reference:** EastBranch\_ACR\_GHGPlan\_1\_19\_22.pdf

**Finding:** Table 1: Core GHG Accounting Principles states "Transparency - Disclose sufficient and appropriate GHG related information to allow intended users to make decisions with reasonable confidence. Disclose any relevant assumptions and make appropriate references to the accounting and calculation methodologies and data sources used."

This finding is to communicate a lack of descriptions and overall transparency with how site index values were calculated. The GHG plan states "Site Index was calculated from tree cores taken in the field and processed by Rocky Mountain Tree Ring Research. The available outputs following processing tree cores included tree species, DBH, Height, Pith Date (calendar year), DBH Age (years). From these outputs, Site Index was calculated using species-specific site index curves<sup>6</sup>." However, no other reference is made to which curves or publications were utilized or how the calculations were carried out.

**Project Personnel Response:** A Site Index calculations file (SiteIndex\_Wcores\_1\_25\_22.xlsx) has now been provided for review. This workbook includes raw core data, as well as formulas and equations that calculate site index by species.

The site index species-level equations can all be found in the supporting document "FIA\_Site\_Index\_Carmean.pdf" in the Verification/SupportingDocs folder. A reference has been made in the GHG plan for documents provided separately relating to Site Index.

**Auditor Response:** The site index calculations have been provided for verification and a reference to those calculations are made in the GHG plan. The finding is now closed.

**Bearing on Material Misstatement or Conformance (M/C/NA):** C

**NCR 8 Dated 3 Feb 2022****Standard Reference:** ACR Standard v6.0

2.A Guiding Principles for GHG Accounting

**Document Reference:** EastBranch\_ACR\_GHGPlan\_1\_19\_22.pdf**Finding:** Table 1: Core GHG Accounting Principles states “Transparency - Disclose sufficient and appropriate GHG related information to allow intended users to make decisions with reasonable confidence. Disclose any relevant assumptions and make appropriate references to the accounting and calculation methodologies and data sources used.”

This finding is to communicate a lack of descriptions and overall transparency with how the regeneration calls were handled during the modelling process. The GHG plan only states that natural sprouting was used without an explanation as to the specific parameters and species under the NATURAL call in FVS. It does not disclose relevant assumptions or rationale for the values used.

**Project Personnel Response:** For non-sprouting regeneration, a regeneration file (EastBranch\_Regeneration\_Calcs.xlsx) has now been provided. This file begins with the StartDate inventory, and determines the number of saplings/Strata by species. It then applies factors outlined in Nunery & Keeton (2010) to determine regeneration rates by silvicultural treatment. The referenced Regeneration file inputs the background TPA and outputs the regeneration TPA by Strata and RX, and inputs those values directly into FVS. Regeneration then immediately occurs after entry. For sprouting regeneration, the FVS keyword SPROUT is used to regenerate sprouting species following a harvest entry. A reference has been made in the GHG plan for documents provided separately relating to natural sprouting and regeneration.

**Auditor Response:** The regeneration calculations have been provided for verification and a reference to those calculations are made in the GHG plan. The finding is now closed.

**Bearing on Material Misstatement or Conformance (M/C/NA):** C

**NCR 9 Dated 23 Feb 2022****Standard Reference:** ACR Template for GHG Project Plans

IFM methodology, Errata and Clarifications for ACR IFM Methodology v1.3

**Document Reference:** EastBranch\_ACR\_GHGPlan\_2\_4\_22.pdf**Finding:** The GHG Plan Template requires the following: "Describe how leakage is accounted for and quantified. Provide sample calculations wherever possible."

The IFM methodology in section "D6. Monitoring of Activity-Shifting Leakage" states:

"If the project decreases wood product production by >5% relative to the baseline then the Project Proponent and all associated land owners must demonstrate that there is no leakage within their operations - i.e., on other lands they manage/operate outside the bounds of the ACR carbon project."

The GHG Plan section E3 Leakage states "Quantification of leakage is limited to market leakage, as no activity-shifting leakage is allowed by the methodology beyond de minimis levels. Market leakage was determined by quantifying the merchantable carbon removed in both the baseline and with-project cases. Carbon in long-term storage in in-use wood products and landfills, calculated above, was used to assess relative amounts of "total wood products produced" in the two scenarios. The decrease in wood production relative to the baseline was then calculated and the applicable market leakage discount factor was determined."

While the GHG plan does speak to the quantification required by the template, it does not describe or demonstrate "that there is no leakage within their operations - i.e., on other lands they manage/operate outside the bounds of the ACR carbon project."

Please update to meet the requirements of the methodology and GHG template.

**Project Personnel Response:** GHG plan Sections E3 has been updated to address both activity-shifting leakage and market leakage: Activity-shifting leakage is not applicable because all forestlands owned by East Branch Sportsman's Club are certified under the American Tree Farm System and included in the project.

**Auditor Response:** The GHG plan has been updated to meet the requirements of the methodology and GHG template.

**Bearing on Material Misstatement or Conformance (M/C/NA):** C